

DEVELOPMENT OF A REGIONAL GAS MARKET IN THE BALTIC AND CEE REGIONS

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GAZ-SYSTEM – INTRODUCTORY INFORMATION

GAZ-SYSTEM



Certified gas TSO in PL,
certified ISO (Yamal-
Europe pipeline in PL)



Company with
strategic significance
for the economy and
energy security in PL



Key integrator and
facilitator of market
development in the
CEE and Baltic regions



LNG terminal in
Świnoujście operated
by its SPV, Polskie LNG

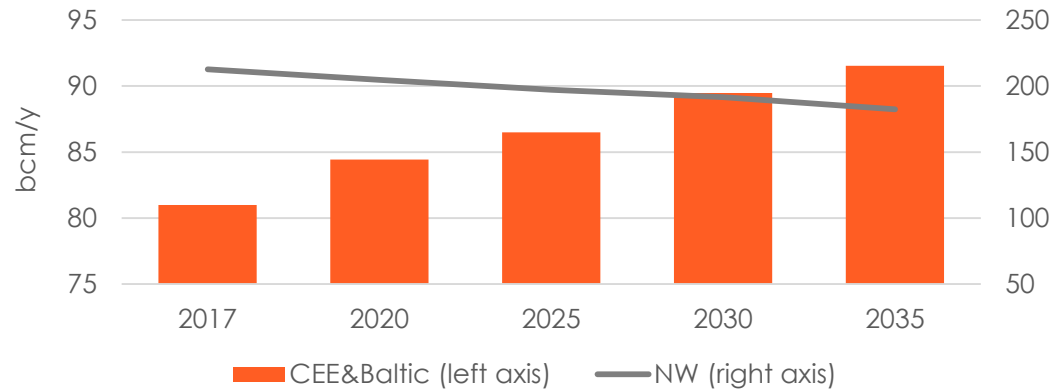


Infrastructure
development to
enable increased
consumption of natural
gas as an
environmentally-
friendly fuel

NATURAL GAS MARKET IN THE CEE & BALTIC REGIONS

DEMAND FORECASTS UNTIL 2035

- ▶ Current gas demand in the CEE and Baltic regions amounts for approx. 81 bcm/y
- ▶ Demand expected to increase up to 91 bcm/y



Source: ENTSOG

MAJOR GROWTH FACTORS

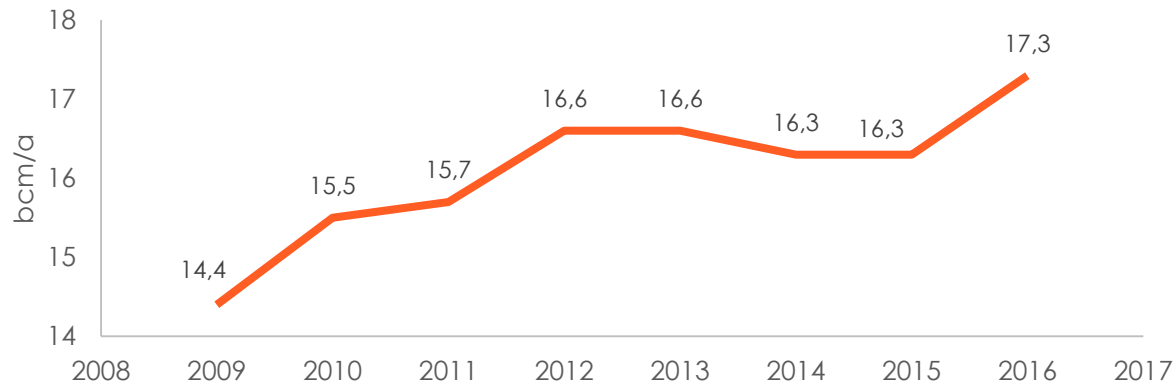
- ▶ Enhanced competitiveness vis-a-vis other sources in the energy market
- ▶ Climate and environmental considerations – switch to lower emitting sources
- ▶ Natural gas in the power generation sector
- ▶ Transport and shipping sector (LNG as an alternative fuel)



NATURAL GAS MARKET IN POLAND

- ▶ High dependence on gas supplies from the Eastern direction
- ▶ 10,989 km - length of transmission network
- ▶ 684 km - length of Yamal-Europe pipeline
- ▶ 100% - shares held by the states treasury
- ▶ 213 - number of shippers
- ▶ 183.9 TWh - volume of transported gas
- ▶ Increasing demand in the market

Natural gas consumption in Poland



Source: BP



NORTHERN GATEWAY PROJECT

THE ASSUMPTIONS:

- ▶ Diversification
- ▶ Gas-to-gas competition
- ▶ Flexible and efficient gas infrastructure
- ▶ Regional gas market

LNG TERMINAL IN ŚWINOUJŚCIE:

- ▶ Up and running since 2016
- ▶ 5 bcm/y of regas capacities + truck loading
- ▶ Extension up to 10 bcm/y + other small scale services

NO-DK-PL PROJECT:

- ▶ Direct connection to Norwegian deposits for the CEE region
- ▶ Capacity up to 10 bcm/y
- ▶ Open season in Q2/Q3 2017
- ▶ Commissioning in 2022



BALTIC PIPE PROJECT

OBJECTIVES:

- ▶ New supply corridor to enable direct access to Norwegian supplies for the Baltic region and Central-Eastern Europe
- ▶ Physical diversification of gas supply
- ▶ Gas-to-gas competition
- ▶ Market integration in the West Baltic region
- ▶ Entry-exit zone in the region with competitive tariffs

CAPACITIES:

- ▶ Up to 10 bcm/y towards PL
- ▶ 3 bcm/y towards DK

TIMELINE:

- ▶ Feasibility study completed in 2016
- ▶ Open season in Q2/Q3 2017
- ▶ Commissioning in 2022



LNG TERMINAL IN ŚWINOUJŚCIE

Regasification Capacity

5 bcm/y – currently

7.5 bcm/y (preparation in progress) up to 10 bcm/y – following further extension

LNG Offloading

Facility designated to receive carriers from 120,000 to 216,000 cm (Q-flex vessels)

Carriers characteristics, draught: 12.5 m, length: 315 m

Storage

Two storage tanks with capacity of 160,000 cm each.

Possibility for the construction of a third storage tank (space reserved)

Capacity booking

Booked: 570,000 cm/h (100%)

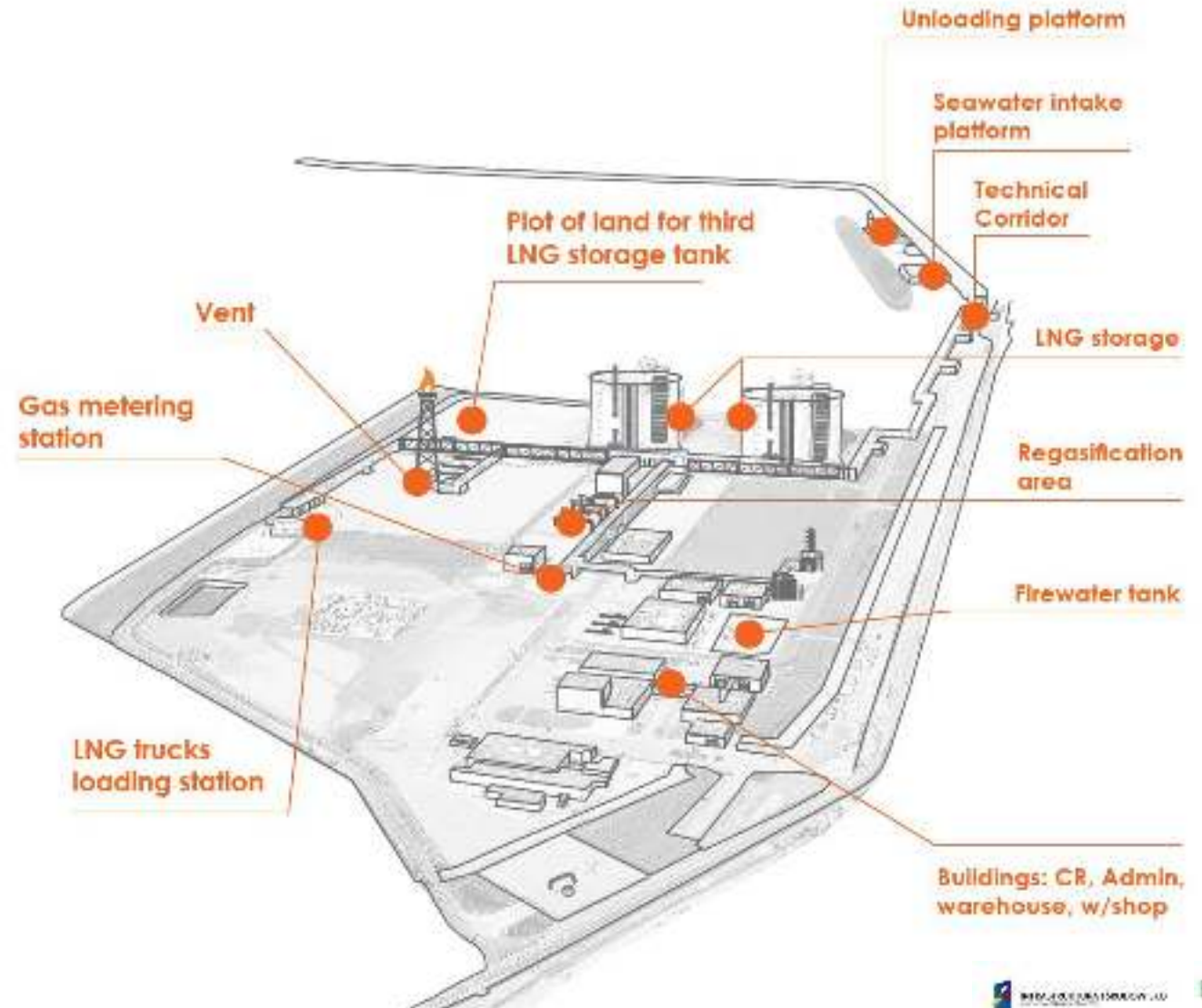
Timetable

Construction works: completed in Oct 2015

Start-up: Q4 2015 – Q2 2016

Technical start-up phase concluded with success

Commercial operations: Jun 2016 (first commercial cargo received on 17/06/16), a number of cargos already received 20



LNG TERMINAL IN ŚWINOUJŚCIE

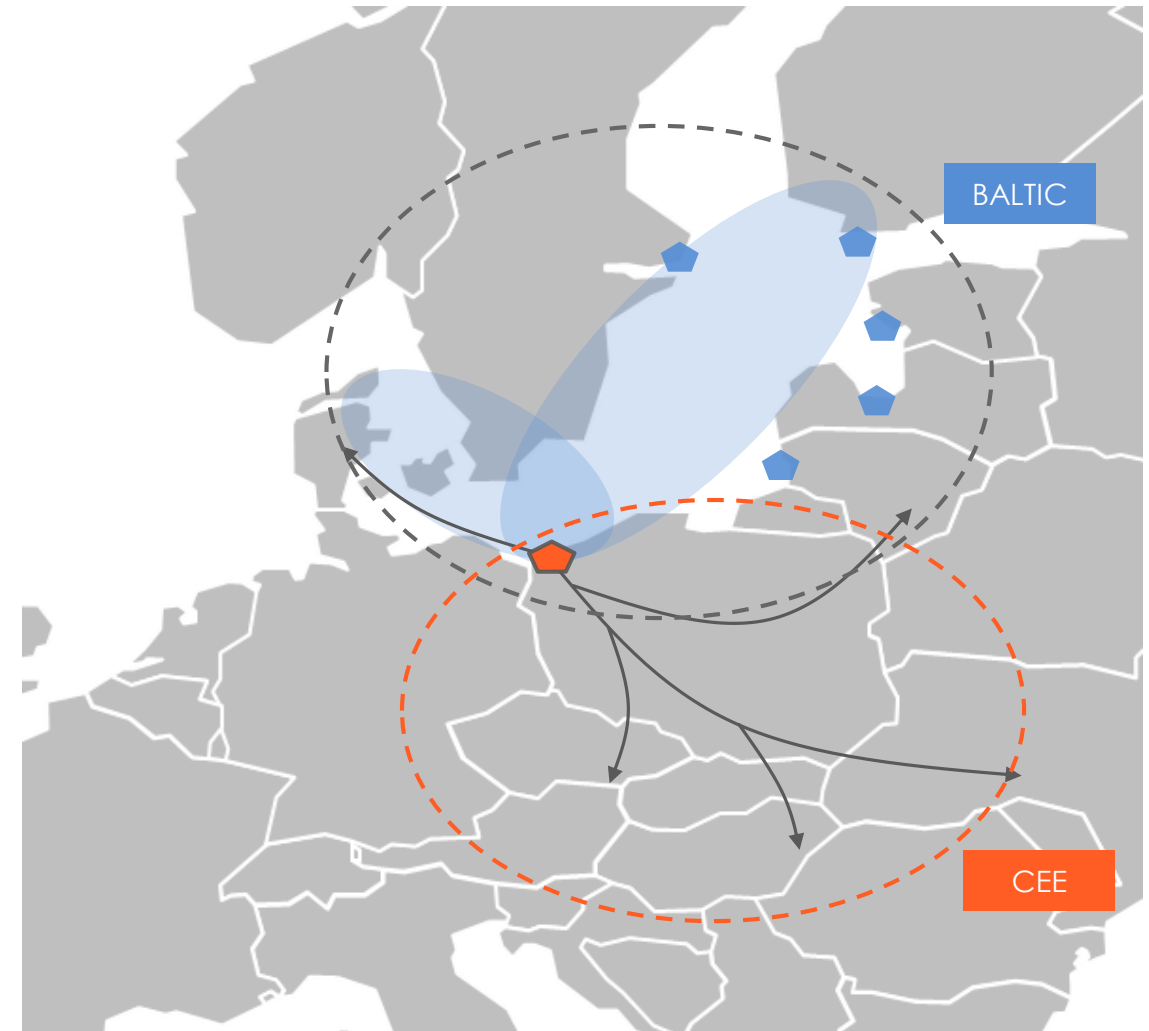


LNG TERMINAL IN ŚWINOUJŚCIE

NEW SUPPLY OPPORTUNITIES FOR THE BALTIC REGION

- ▶ **Baltic region.** New source of supply for the Baltic States and Finland via Poland – Lithuania interconnection
- ▶ **CEE region.** LNG supplies provided to the CEE region and Ukraine via the North-South Gas Corridor

LNG Terminal in Świnoujście as the key component of the strategy to diversify gas supplies in the CEE and Baltic regions



LNG TERMINAL IN ŚWINOUJŚCIE

Additional LNG services to foster the deployment of LNG as a competitive and sustainable fuel:

- ▶ LNG truck loading services
- ▶ LNG bunkering services
- ▶ LNG reloading to smaller vessels
- ▶ LNG storage services
- ▶ LNG in transport sector
- ▶ LNG as a ship fuel

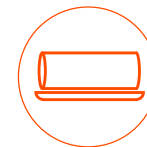
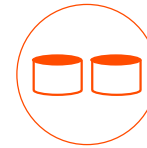
**New solutions to increase business opportunities
in the CEE and Baltic regions**

Positive influence on competition and sustainability

TODAY



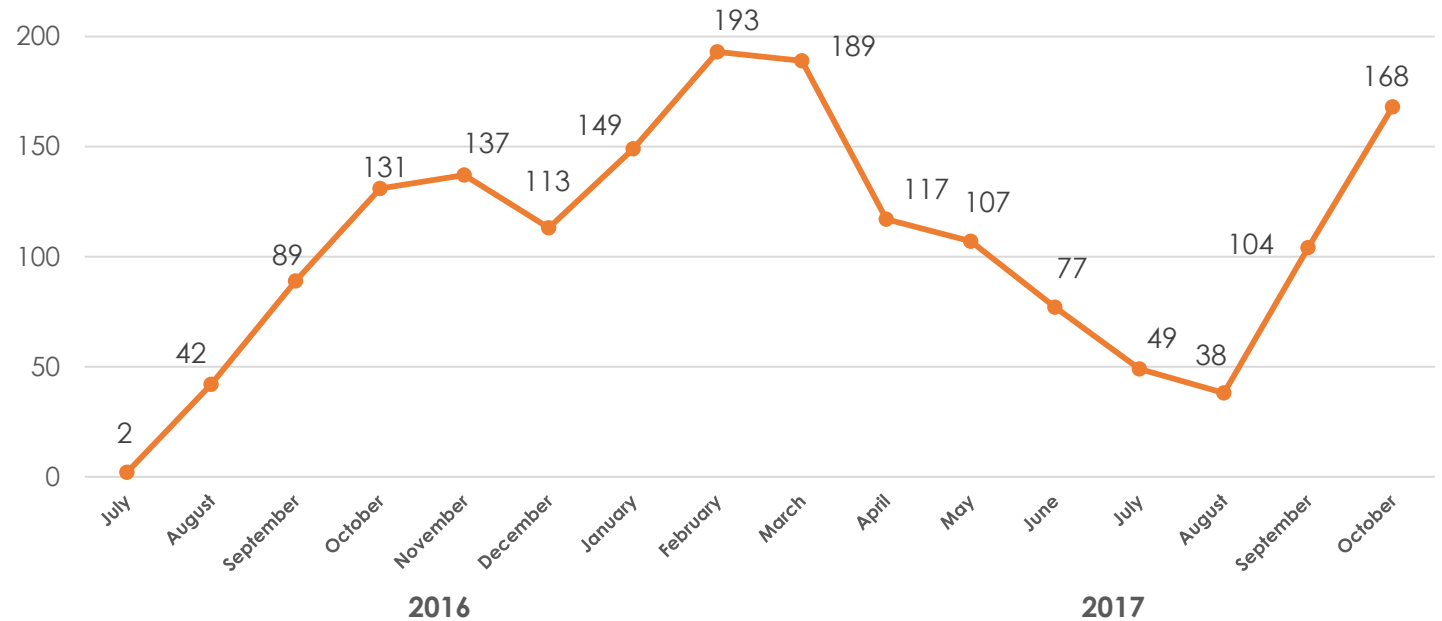
TOMORROW



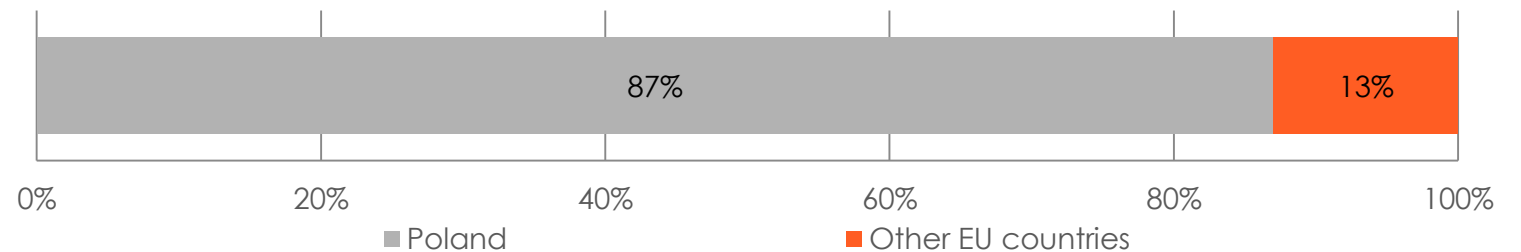
LNG RELOADING AND TRANSPORT

- ▶ More than 1700 truck loading operations since the commissioning of LNG terminal in Świnoujście
- ▶ Growing number of foreign customers
- ▶ Planned extension of LNG terminal infrastructure as a response to increasing demand on the market
- ▶ More than 50,000 LNG truck loading operations in Europe (12% growth year-over-year)

Number of LNG-to-truck reloading operations at LNG terminal in Świnoujście



Geographical coverage of trucks loaded



PROVIDING NEW POSSIBILITIES TO THE CEE REGION

PROJECTS

- ▶ Targeted approach to infrastructure needs
- ▶ Internal pipelines and interconnections to provide regional integration

SUPPLY

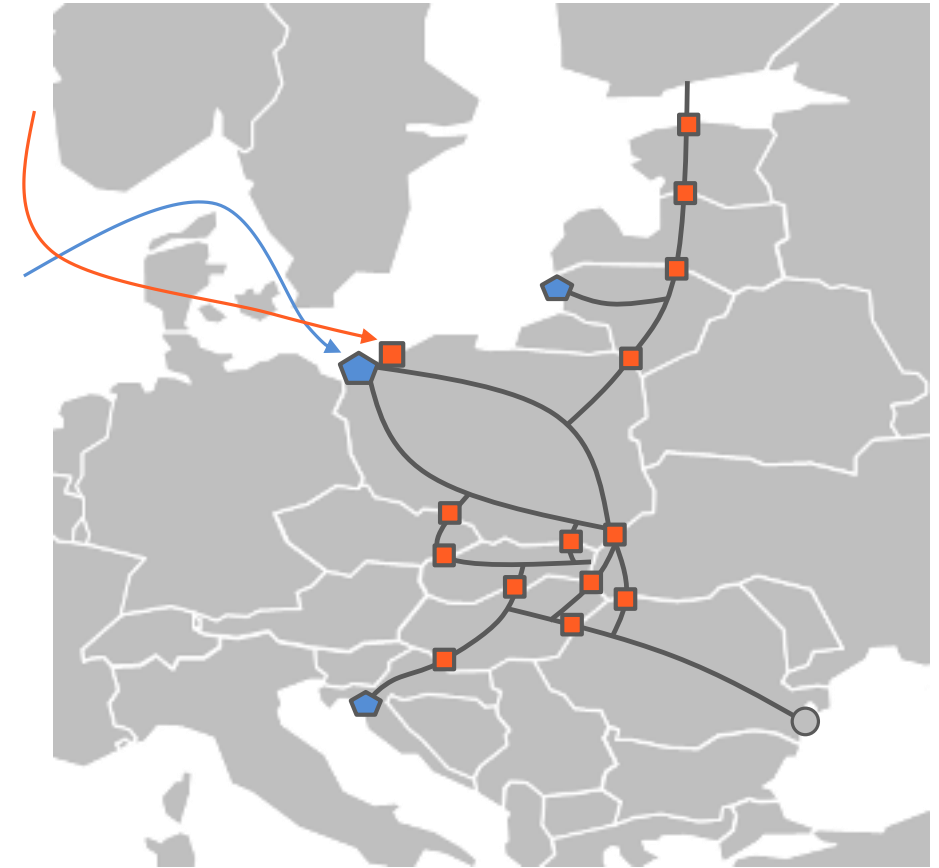
- ▶ Integrated regional market in the CEE and SEE regions
- ▶ Attracting new supply potential: LNG, NO, SGC, indigenous sources

LEVERAGE

- ▶ Relatively low costs of new infrastructure provide leverage for lower commodity prices for end-users
- ▶ Enhancing economic performance of the economies in the region via lower energy cost and gas-to-gas competition

SOFTWARE

- ▶ Implementation of the EU network codes and market based solutions
- ▶ Creating conditions for regional trading



- ▶ LNG terminals
- ▶ NO-DK-PL project
- ▶ Other cross-border IPs

CREATING A REGIONAL NATURAL GAS MARKET

POLAND – LITHUANIA INTERCONNECTION:

- ▶ **Capacity:** 2.4 bcm/y towards LT, 1.7 bcm/y towards PL
- ▶ **Project role:** integration of the isolated gas markets in the East Baltic region, diversification of supply

POLAND – SLOVAKIA INTERCONNECTION:

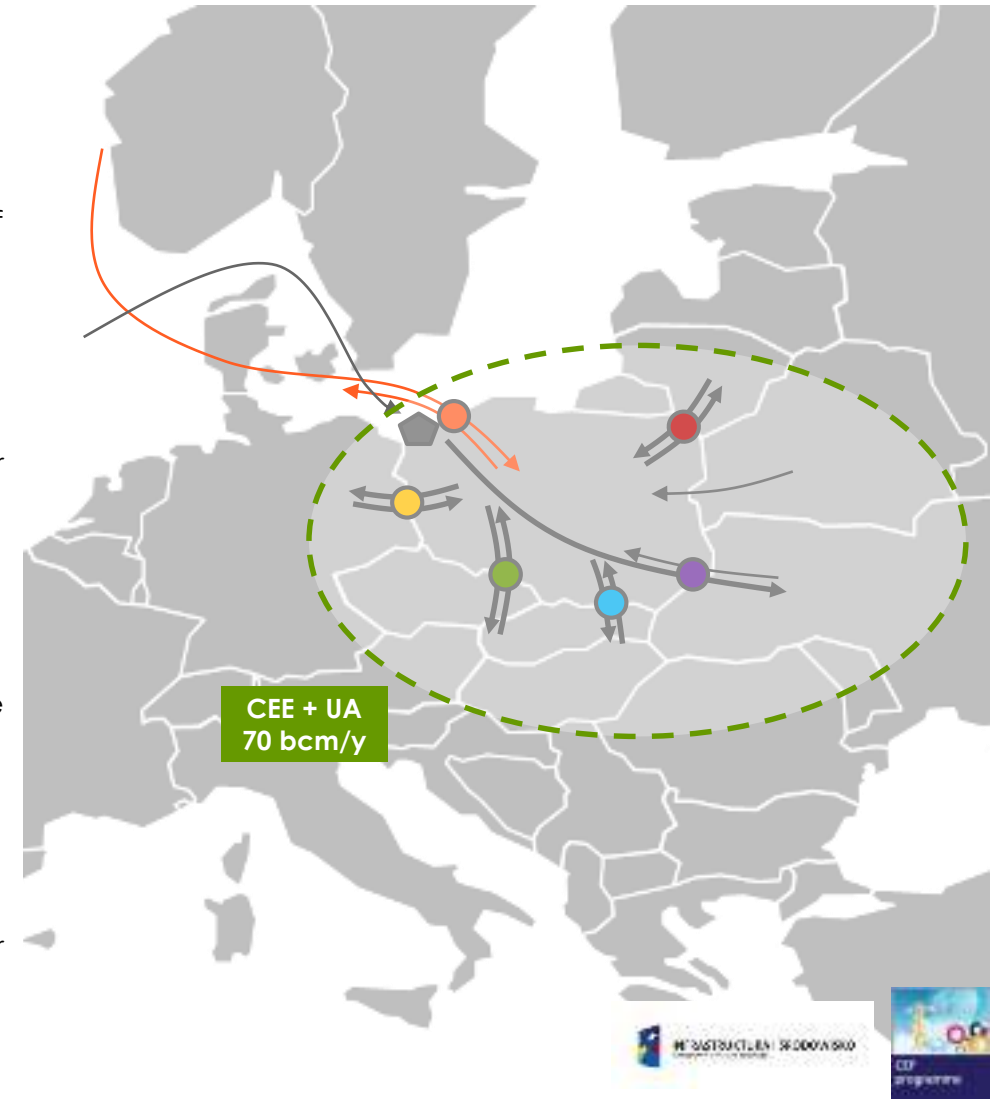
- ▶ **Capacity:** 4.3 bcm/y towards SK, 5.7 bcm/y towards PL
- ▶ **Project role:** integration of the gas markets by creating a large transportation corridor between both countries

POLAND – UKRAINE INTERCONNECTION:

- ▶ **Capacity:** 5-8 bcm/y towards UA, 5 bcm/y towards PL
- ▶ **Project role:** connection of Poland's and Ukraine's systems to diversify gas supplies for Ukraine and further integrate transmission networks and markets in Eastern Europe

POLAND – CZECH REPUBLIC INTERCONNECTION:

- ▶ **Capacity:** 5 bcm/y towards CZ, 6.5 bcm/y towards PL
- ▶ **Project role:** integration of the gas markets by creating a large transportation corridor between both countries



GAS INTERCONNECTION POLAND – LITHUANIA (GIPL)

OVERVIEW:

- ▶ **Capacity:** 2.4 bcm/y towards LT, 1.7 bcm/y towards PL
- ▶ **Parameters:** PL section: 337 km, LT section: 177 km
- ▶ One of the most important EU infrastructure projects aimed at integrating the Baltic States with the EU natural gas market, diversification of supply
- ▶ Financial support from CEF: 295.4 mEUR (works), 10.6 mEUR (studies)
- ▶ CBCA decision issued by ACER
- ▶ **Commissioning:** 2021

CURRENT STATUS

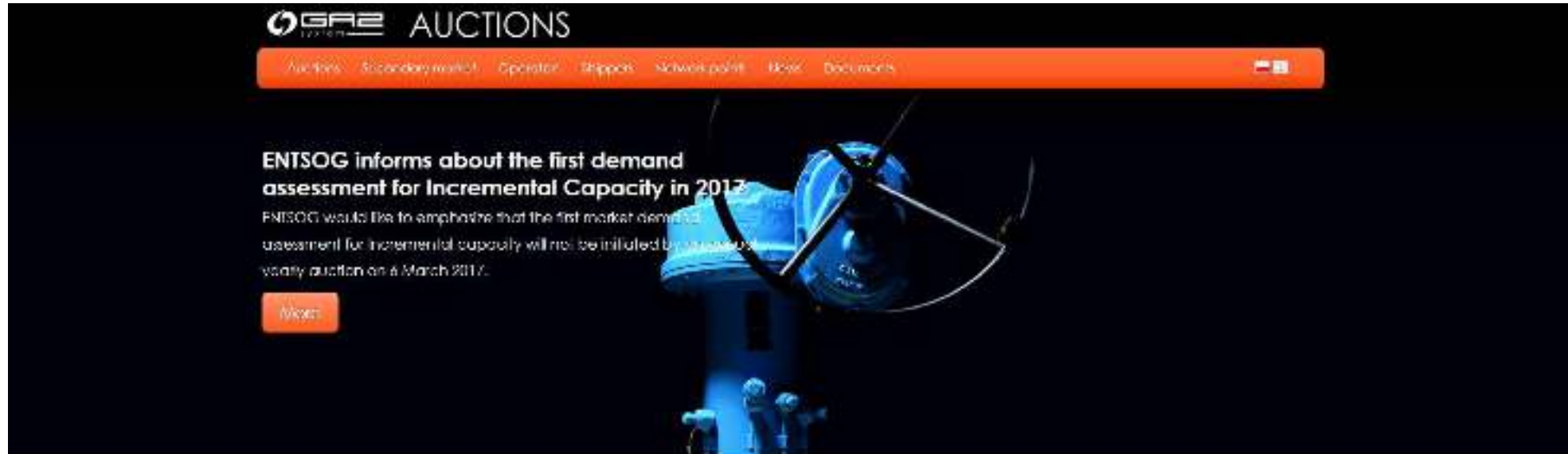
- ▶ New technical approach implemented in Poland with time schedule approved by the governments and European Commission
- ▶ EIA with natural valuation and decision on the environmental conditions issued for the „old” route
- ▶ Technical feasibility study finished with optimal routing selected in the „new” section
- ▶ Environment inventory and valorisation ongoing
- ▶ Tendering procedure for engineering works ongoing, agreement to be signed by the end of 2017
- ▶ Discussion to sign the Inter-TSOs Agreement between PL and the Baltic States, that will set out rules of transferring funds according to the ACER Decision of August 2014
- ▶ The Inter-TSOs Agreement as a prerequisite to secure financial setup and to sign the Connection Agreement (understood as FID)



REGIONAL MARKET DEVELOPMENT

- ▶ Development of a regional gas market requires implementation of EU legal framework and appropriate solutions to apply it in practice
- ▶ GAZ-SYSTEM follows carefully processes taking place in Baltic States and is willing to support actively the processes
- ▶ Unique experience of transmission system transition to EU rules, Network Codes, tools and products, 3rd countries
- ▶ GSA Platform established as a tool to foster market development (based on the Network Code on Capacity Allocation Mechanisms)
- ▶ GSA Platform as an IT system to run auctions by transmission system operators to allocate capacities at interconnection points by shippers
- ▶ GSA characteristics:
 - ▶ Flexibility, cost-effectiveness, user-friendliness, ergonomics, IT stability
 - ▶ Full compliance with the Network Code on Capacity Allocation Mechanisms
 - ▶ Possible adjustment to local requirements
 - ▶ Addressing expectations of the market (incl. non-EU countries)

GSA PLATFORM



Operators

We invite all of the new Transmission System Operators interested in cooperating with the GSA Platform to register.

[Register >](#)

Shippers

We invite all of the new Network Users interested in cooperating with the GSA Platform to register.

[Register >](#)

Sign in

[Forgot your password?](#)

[Login](#)

More information available at <https://aukcje.gaz-system.pl/>

CONCLUSIONS

CHALLENGES

- ▶ Relatively immature markets compared to North-West Europe
- ▶ Strongly dominated by RU supplies, largely based on oil-indexed pricing formula
- ▶ Fragmented and highly exposed to supply disruptions

REMEDIES

- ▶ Enhancing direct access to new supply sources such as LNG and Norwegian gas
- ▶ Integration of gas infrastructure between the Baltic and CEE countries
- ▶ Exploring new market opportunities for LNG

EXPECTED RESULTS

- ▶ Creation of a regional market with secure and diversified supply portfolio
- ▶ Fostering competition and liquidity
- ▶ Improvement of competitive position of natural gas via-a-vis other sources of energy
- ▶ Creation of conditions for further development of the regional gas market

THANK YOU FOR YOUR ATTENTION

